

Claims

What is claimed is:

- 1 1. An electrical structure comprising a conductive button, said conductive button including:
2 a dielectric core; and
3 a conductive wiring helically wound circumferentially around the dielectric core, wherein
4 the conductive wiring terminates in at least two end contacts at a first end of the conductive
5 button, and wherein the conductive wiring terminates in at least two end contacts at a second end
6 of the conductive button.
- 1 2. The electrical structure of claim 1, wherein being helically wound includes being braided.
- 1 3. The electrical structure of claim 1, wherein being helically wound includes being served.
- 1 4. The electrical structure of claim 1, wherein being helically wound includes being helically
2 wound in no more than one rotational direction, and wherein the one rotational direction is
3 selected from the group consisting of a clockwise direction and a counter clockwise direction.
- 1 5. The electrical structure of claim 1, wherein the conductive wiring has a diameter between
2 about 1 mil and about 5 mils.

1 6. The electrical structure of claim 1, wherein the conductive wiring includes a conductive
2 material selected from the group consisting of copper, a copper alloy, nickel, palladium, and
3 platinum.

1 7. The electrical structure of claim 1, wherein the dielectric core includes a dielectric material
2 having a hardness between about 37A and about 56D on a Shore scale.

1 8. The electrical structure of claim 1, wherein the dielectric core has axial grooves along an outer
2 surface of the dielectric core.

1 9. The electrical structure of claim 1, wherein the dielectric core has an axial through hole at a
2 radial center of the dielectric core.

1 10. The electrical structure of claim 1, wherein the dielectric core has a foamed structure.

1 11. An electrical structure comprising a conductive button, said conductive button including:
2 a dielectric core;
3 a conductive wiring helically wound circumferentially around the dielectric core, wherein
4 the conductive wiring terminates in at least two end contacts at a first end of the conductive
5 button, and wherein the conductive wiring terminates in at least two end contacts at a second end
6 of the conductive button; and
7 an outer dielectric jacket around the conductive wiring.

1 12. The electrical structure of claim 11, wherein being helically wound includes being braided.

1 13. The electrical structure of claim 11, wherein being helically wound includes being served.

1 14. The electrical structure of claim 11, wherein being helically wound includes being helically
2 wound in no more than one rotational direction, and wherein the one rotational direction is
3 selected from the group consisting of a clockwise direction and a counter clockwise direction.

1 15. The electrical structure of claim 11, wherein a portion of the conductive wiring is at a helical
2 angle between about 30 degrees and about 60 degrees with respect to an axis of the button.

1 16. The electrical structure of claim 11, wherein at least one end contact at the first end of the
2 button is at a node of two wires of the conductive wiring.